DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. ARMY MATERIEL COMMAND
9301 CHAPEK ROAD
FORT BELVOIR, VA 22060-5527

REPLY TO
ATTENTION OF

CPL 05-12-AMCOPS-ILS

AMCOPS-ILS   3 January 2006

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Policy Letter – U.S. Army Materiel Command (AMC) Continuous Process
Improvement (CPI) Policy

1. Our new theme "… to be faster, more agile, less bureaucratic… must fight this everyday" was
adopted for one reason – better support to the Warfighter. It is our duty to improve quality,
speed, and agility and eliminate waste in both our industrial and our administrative processes.
The U.S. Army Materiel Command will implement a program of continuous process
improvement that:

   a. Recognizes that the Warfighter is our ultimate customer.

   b. Reaches every product and every person in the AMC enterprise.

   c. Extends beyond AMC into every component of the value stream.

   d. Uses Lean Six Sigma as the continuous improvement "starting point" while adapting other
best practices to unique demands.

   e. Incorporates all AMC-managed improvement programs to include Value Engineering,
Army Quality Federation, Reduction of Total Ownership Cost, and Operation and Support Cost
Reduction, into an integrated CPI program.

   f. Uses metrics to track performance, demonstrate value and enable decisions.

   g. Institutionalizes performance assessment and learning.

2. Each addressee is expected to:

   a. Implement a program of continuous improvement and foster a culture of innovation within
their area of operation.

   b. Understand the principles of Lean Six Sigma.

   c. Aggressively and relentlessly reduce bureaucracy and eliminate waste.

   d. Clearly state continuous improvement expectations to subordinate leaders and workforce.

   e. Focus on projects that have high value to the Warfighter.

   f. Train and develop Green Belts, Black Belts, and Master Black Belts to facilitate change as appropriate to each organization.

   g. Establish full-time change agents and Black Belts to lead CPI deployment and projects as appropriate to each organization.

   h. Apply "bottom line, production-oriented" metrics and establish tailored review processes to measure performance and institutionalize learning.

   i. Communicate lessons learned within their area of operation and across AMC.

   j. Recognize and reward innovation and CPI success.

   k. Embed Lean Six Sigma experience and training in recruitment/selection processes as appropriate to the position and maturity of our CPI deployment.

   l. Reinvest continuous improvement savings, within the limits of law, regulations and policies, to return savings to our customers, resource increased production, and "self-finance" continuous improvement.

   m. Establish partnerships with customers and suppliers to ensure understanding of requirements and fully integrate the value stream

3. To guide our continuous improvement program, AMC Headquarters will:

   a. Use an Executive Steering Group (ESG) composed of Commanders of Major Subordinate Commands/Life Cycle Management Commands (MSCs/LCMCs) and Senior HQAMC staff to guide deployment and assess progress.

   b. Establish an AMC Continuous Improvement Champion to synchronize efforts across AMC, manage the program approved by the ESG, and develop, issue, and maintain the AMC Lean Six Sigma Deployment Plan (Enclosed) for the Commanding General, HQ Army Materiel Command.

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    c. Establish a "Rapid Review Team" of recognized industry experts to conduct rapid, hard-hitting assessments of our industrial operations

    d. Consider Lean Six Sigma training resource requirements among its critical priorities

4. AMC will aggressively seek to improve its support to our Nation's armed forces. We will pursue the strategy laid out in this policy with the objective of establishing a culture of innovation that encourages continuous improvement.

                                 //Signed//
Encl   BENJAMIN S. GRIFFIN
as   General, USA
                                 Commanding

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US Army Materiel Command (AMC) Lean Six Sigma (L6σ) Deployment Plan

1. **Scope.** This Deployment Plan pertains to the Headquarters US Army Materiel Command (HQAMC) as well as to AMC's Major Subordinate Commands/Life Cycle Management Commands (MSCs/LCMCs). This Deployment Plan addresses multiple facets of continuous improvement to include Lean Six Sigma (L6σ) training, project execution, roles and responsibilities, and management review procedures.

2. **Intent.** Consistent with the AMC Continuous Process Improvement Policy, the L6σ deployment will establish a program to improve quality, speed, and agility in both our industrial and our administrative processes. This program of Continuous Process Improvement (CPI) will:

- Recognize the warfighter as our ultimate customer;
- Reach every product and every person in the AMC enterprise;
- Extend beyond AMC boundaries into every component of the supply chain; and
- Use Lean Six Sigma as the continuous improvement starting point while adapting other best practices to unique demands.

3. **Roles and Responsibilities.**
    a**.** The **Commanding General** (**CG)** has the overall responsibility for the L6σ deployment and exercises direct control over the organization's Champion. The CG will chair the organization's Executive Steering Group (ESG) and is responsible for leading the entire program either directly or through the Champion.

    b. HQAMC and each MSC/LCMC will have an **ESG** chaired by the organization's CG. The HQAMC ESG is composed of the MSC/LCMC Commanders and senior HQAMC staff who are expected to have understanding of the principles and tenets of L6σ application. The ESG will conduct the major management reviews and provide direction to guide deployment at least semi-annually. In addition, ESGs will recognize and reward success stories as well as identify and resolve roadblocks and barriers.

    c. A **Champion** will be assigned at each level of command including HQAMC and each MSC/LCMC. The Champion will report directly to the Commander on all matters pertaining to the deployment of L6σ. The Champion will coordinate L6σ resources and direct the Deployment Core Team. Each organization's Champion is responsible for assessing training requirements; assuming a mentorship role for Lean Six Sigma Black Belts; maintaining oversight of Black and Master Black Belt periods of performance; recognizing and rewarding success, and propagating success stories and lessons learned to aid in cultural change. It is the Champion's responsibility to allocate L6σ resources to those projects best servicing the organization's strategic and tactical goals and objectives. The Champion will award Green Belt (GB), Black Belt (BB) and Master Black Belt (MBB) certificates. The HQAMC Champion will coordinate with the Department of the Army, Department of Defense, other Services, and AMC's industrial partners to ensure synergy of deployment strategies and to leverage other CPI programs.

As the management review process is the primary method of keeping the CG informed of progress in the deployment, each Champion is also responsible for executing their Command's management reviews on an event-driven schedule with a frequency sufficient to keep the CG current on the deployment's progress. The HQAMC Champion will coordinate, synchronize, and de-conflict efforts across AMC and manage the program approved by the ESG.

   d. **Sponsors** are those personnel who propose a project for a Black Belt to conduct and will be directly involved in the L6σ deployment on a part-time basis. Sponsors will conduct a thorough review of the proposed project, in coordination with their assigned Black Belt, to ensure that the project is of sufficient priority to warrant commitment of L6σ resources. Sponsors should have purview over the entire product/process proposed as a project. When this is not the case, the appropriate level of management may direct co-Sponsorship of the project by two or more stakeholders. Black Belts assigned to the project work directly for the Sponsor until project completion and are responsible for project output. The Sponsor is responsible for implementing the output, i.e., they are responsible for project outcome. As such, Sponsors must be decisively engaged in the project from inception to output implementation.

   e. The **Senior Master Black Belt (MBB)** is a full-time position. The Senior MBB is responsible for training, educating, and mentoring the L6σ Green and Black Belts. The Senior MBB will establish the L6σ training Program of Instruction for the Command and will certify Green, Black, and Master Black Belts. The Senior Master Black Belt will serve as advisor to the Champion and as a consultant on all CPI projects, as well as to the Deployment Core Team.

   f. HQAMC and each MSC/LCMC will establish a full-time, dedicated **Core Team** responsible for executing the deployment effort and for orchestration of all management reviews. The optimal team size will vary but initial guidance is to establish both the deployment element and the support element of the Core Team with not less than four personnel each. This will ensure adequate trained personnel resources to execute the deployment and fully support the Champion as well as provide adequate support personnel to fully integrate the efforts of each echelon of the Command in this deployment and management oversight.

   (1) The deployment element of the core team will be comprised of Government personnel trained as Black and Master Black Belts. They will be responsible to ensure that all matters critical to the Command-wide L6σ deployment are surfaced and addressed. They will also:

- Report progress monthly on command wide L6σ deployment to the ESG and Champion.
- Establish an auditable system that ensures selection of projects are in alignment with the priorities of AMC and/or MSC/LCMC.

By 1QFY06, the HQAMC Deployment Core Team will establish a database/resource tool to constantly update facts and figures to minimize data calls.

   (2) The support element of the Core Team may be government or contractor personnel. The size of the support element of the deployment core team will be determined by the organization's CG in consultation with the Champion and the organization's senior Master Black

Belt. The support team's functions include but are not limited to: providing support to Black Belts, Sponsors, the Champion, and the ESG; planning and orchestrating Management Reviews for the Champion; and interfacing with the support structure of higher, subordinate, and adjacent organizations for data transfer and information development.

g. AMC **Master Black Belts** (MBB) will be responsible for the training and education in all the tools and techniques, as well as mentoring Black Belts in the execution of their projects. MBBs will be engaged in L6σ efforts on a part time basis. If not engaged in sustaining the deployment effort as part of the core team, MBBs will remain in their parent organizations and conduct duties as described in their normal work functions. They are, however, resources which the organization principal can direct with respect to the deployment and which the organization's Champion can request in support of specific operations, especially those concerned with training, education, mentoring, and deployment, or particularly complex CPI projects with CG interest.

h. AMC **Black Belts** are the experts who lead projects for a Sponsor. Black Belts who have been assigned a project will be dedicated to that project until completion and will work directly for the project Sponsor. A management review will be conducted by the Champion, the Sponsor, the mentoring Master Black Belt, and the Black Belt at the conclusion of the project. A management review conducted by the Champion, the Sponsor, and the Black Belt at the conclusion of the project will include either assignment of the Black Belt to another project or return to his/her parent organization and previous duties.

i. AMC **Green Belts** lead projects that have low complexity or risk as well as assist Black Belts in the conduct of a complex or high value project. As such, they must understand the fundamentals of L6σ and be prepared to assist the Black Belt in the exercise of the project. Green Belts remain in their parent organizations and conduct duties as described in their normal work functions.

j. **Subject Matter Expert** (SME) teams will be formed on a project-by-project basis. The responsible Black Belt, in coordination with the Sponsor, will identify resources required and provide the schedule and anticipated workload to the Champion. The Champion and Sponsor will determine the best course of action to resource the team. Approval to participate on the team will be given with the knowledge that SMEs involvement may be extensive dependent on the scope of the specific project. The SMEs remain in their parent organizations and conduct duties as described in their normal work functions.

k. **Customers.** Value Chain and Value Stream Analyses as well as other tools and techniques will be used to identify all customers, both direct and ultimate. Customers will be involved in projects from design through delivery.

4. **Tasks.** In order to accomplish this deployment and its attendant strategies, the HQAMC Deployment Core Team will accomplish the following tasks:

- Conduct training for HQAMC and MSC/LCMC ESGs;
- Conduct training for HQAMC project Sponsors;

- Conduct Green, Black, and Master Black Belt training in L6σ for selected personnel;
- Conduct familiarization training for all other AMC personnel;
- Use the Green, Black, and Master Black Belts to guide AMC teams to improve industrial and transactional processes;
- Coordinate L6σ initiatives throughout AMC;
- Provide expert consultation and facilitation on the application of the continuous improvement tool set;
- Establish management review processes; and
- Develop strategies and action plans for creating and sustaining a culture of innovation.

5. **Training.** In order to migrate to self-sufficiency as soon as possible, HQAMC and the MSC/LCMCs will develop and deploy a full Program of Instruction (POI) which provides sufficient latitude to allow tailoring to suit individual organization's needs but is also sufficiently integrated to accommodate portability of L6σ expertise across AMC. The HQAMC POI is currently being executed effective 1QFY05. The MSC/LCMCs' target for complete deployment of their POIs is set at 2QFY06. HQAMC and each MSC/LCMC will publish a draft training schedule NLT 2QFY06. The successful implementation of a continuous process improvement effort requires that all levels of the organization undergo training. Several types of training will be conducted:

   a. **Familiarization Training** for the AMC workforce will consist of the fundamentals of L6σ to include terminology, intent, application, and goals. This training will be conducted via an on-line course offered by DAU. The course will be developed and deployed by 2QFY06.

   b. **Executive Training** will be conducted for all members of the ESG at each Command. The executive training objectives are:

- Know what L6σ is, why we need it, and what it can do for us;
- Understand the nature of variability and how it affects our business;
- Comprehend the synergies between Lean and Six Sigma;
- Understand how to recognize and address the critical deployment and implementation issues for a successful rollout of L6σ.

   c. **Sponsor training** will be provided to HQAMC and each MSC/LCMCs to ensure Sponsors understand the following:

- What is L6σ? Why do we need it? What can it do for us?
- The fundamentals of good project selection;
- How to select personnel to participate in the Practitioner/Expert training;
- The basic and advanced L6σ tools to know when and where they should be applied;
- How to produce a value stream map of their critical processes and list of L6σ project priorities to address critical issues.

d. **Practitioner/Expert training** will be conducted to ensure a Command-wide deployment that provides the core skills, knowledge and abilities to enable the most effective and efficient L6σ deployment. It will also ensure portability of trained personnel. Practitioner/Expert training is fundamental to the establishment of a self-sufficient deployment and therefore may be conducted by a provider in the early stages but will transition to in-house training as soon as possible. The following minimum certification requirements are established for each level:

(1) **Green Belt**. As a minimum, one week of training on the tools and techniques of L6σ. This course includes tools that capture the Voice of the Customer, and modules on Creative Problem Solving and Quality Management Systems (QMS). As Green Belt training is a "leveler" and designed to be inclusive in accommodating the varying backgrounds of AMC employees, Green Belt training will be open to volunteers. The invitation will be sent out by the organization's Champion.

(2) **Black Belt**. In addition to the Green Belt training, AMC L6σ Black Belt training will include:

- Two weeks of advanced training on L6σ tools and techniques such as design of experiments, analysis of variance, regression analysis, and hypothesis testing;
- Use of psychometrics that provide insight into how people gather information, solve problems, and make decisions to rapidly form and guide a team in the conduct of a project;
- Basic Creative Problem Solving to address problems not solvable using critical problem solving techniques;
- Training as a QMS lead auditor;
- Completion of a successful Black Belt project which highly impacts goals and outcomes of the Sponsor and organization;

Black Belt training will be by invitation to certified Green Belts. All Black Belt candidates must volunteer through their parent organization. The parent organization must then nominate the candidate to the L6σ Champion for acceptance into the Black Belt program of instruction. Once certified, it is recommended that Black Belts operate as a full-time Black Belt for a limit of two years. After the two years, they retain their Black Belt certification but are returned to their former positions and may be assigned to L6σ projects as needed to ensure continuity of their professional development.

(3) **Master Black Belts** (MBB). In addition to the Black Belt training listed above, AMC L6σ MBBs will also be:

- Certified as CPS Trainers
- Trained in Deployment Planning
- Certified as L6σ Instructors
- Trained on ethics and the ethical execution of the deployment plan;
- Certificated in the application and use of a statistically significant climate survey instrument.

MBB training is extensive and requires personal and organizational commitment, therefore, all MBB candidates must volunteer through their parent organization. The parent organization must then nominate the candidate to the Champion. The Champion will seek the counsel of one or more MBBs who have instructed/mentored the nominated candidate, and, will decide whether or not to invite the nominee into MBB candidacy. Once certified, it is recommended that MBBs are limited to an assignment of three years. At the end of the third year, they will retain their MBB certification, but will resume their organizational duties full-time. They will be returned to their skill to ensure no interruption to their professional development.

6. **Metrics.** Both descriptive and predictive metrics will be used in the L6σ deployment.

   a. Descriptive metrics will be developed for each project and will address quality, cost, schedule, and risk.

   b. Predictive metrics will be developed for the assessment of the overall program deployment and measurable changes in Organizational Climate

   c. Deployment metrics are to be collected by the Deployment Core Team and reported to the organizations ESG and Champion on a monthly basis.   The metrics for the deployment include:

   1. Number of trained executives, Sponsors, GB, BB, and MBB.
   2. Number of completed GB and BB projects and validated results for each project
   3. Number of active GB and BB projects and projected results for each project
   4. Success stories and lessons learned.

7. **Management Review Procedures.** Management Reviews will be planned by each organization's Champion in coordination with the appropriate leadership to coincide with events critical to the deployment. Additionally, an ESG review of the overall program will be conducted not less than semi-annually. These reviews will target not only the progress of individual projects, but also the progress of the overall program and the effect the deployment is having on the command climate. All subordinate organizations will integrate their deployment with the next higher echelon to ensure proper functioning of the management review system. The HQAMC management review system will provide insight into the successes and failures of individual projects as well as the overall program. To the extent practical L6σ production improvements will be assessed in standing production or organizational review processes.

8. **Funding.** Funding for FY06 and FY07 should be considered as a critical requirement and submitted for resourcing. Funding required for FY08 and beyond will be included in the POM. Funding for the L6σ deployment will be the responsibility of each Command. AMC will pursue a L6σ savings policy that encourages reinvestment of L6σ related savings to enable self-financing of continuous improvement training and projects.

9. **Incentives.** HQAMC and its MSC/LCMCs will make maximum use of incentives to encourage personnel to participate as SMEs on IPTs, to volunteer for Practitioner/Expert Training, and to volunteer for a tour of duty on the Deployment Core Team. Incentives may

include time-off awards, personal awards, retention bonuses, organizational recognition, temporary promotions, and expanded training opportunities both within and outside the organization. Awards and rewards will be publicized as appropriate.

10. **Planning for Continuous Improvement**: The HQAMC L6σ Team will continually improve the L6σ process. As part of that continuous improvement, the Deployment Plan will be reviewed, as a minimum, on an annual basis.